## REMARKS

In the Office Action, claims 7-17 were allowed, and claims 1-6, 18-30 were rejected. Applicant thanks the Examiner for allowing claims 7-17.

By this Reply and Amendment, claims 1, 18, 23, 25, 28 and 29 have been amended, and claims 1-30 remain pending in the present application. All claim amendments are fully supported throughout the written description and figures of the specification.

Claims 25 and 26 were objected to for failing to provide antecedent basis for "the spring" in claim 25. Accordingly, "the spring" has been changed to "the gas" in claim 25, and the objection should be overcome.

Claims 1-6 and 18-28 were rejected under 35 USC 102(b) as anticipated by the Poullard et al. reference, US Patent No.: 5,984,014. Independent claims 1, 18, 23, 25 and 28 have been amended to clarify certain aspects of the claim language and are believed patentable over the cited reference.

The Poullard et al. reference describes a pressure responsive well tool. The well tool 50 is operated by selectively increasing pressure in an annulus 46 by a pump 24 via a control conduit 26. The increased pressure ultimately causes an annular piston 210 and an affixed latching mandrel 200 to move axially upward. Fluid above piston 210 is evacuated upward through longitudinal channels 130 into chamber 122 to urge floating piston 124 upward, thereby pressurizing gas in a chamber 120. As annulus pressure is bled off, the pressure in chamber 120 freely moves floating piston 124 downward. The pressure of floating piston 124 is transmitted through fluid within the upper oil chamber 122, channels 130 and first intermediate oil chamber 129. The annular piston 210 and latching mandrel 200 are moved in a downward direction. However, a lug 202 on latching mandrel 200 engages a first knuckle 208 which temporarily limits further downward movement. (See column 12, line 37-column 13, line 17). Accordingly, the Poullard et al. reference fails to disclose a variety of features, including initial latching of an

actuator piston for movement downhole as well as retaining a compressed system in a maximum compressed state to ensure maximum stored energy to actuate a device.

By way of specific example, the Poullard et al. reference fails to disclose or suggest an apparatus for remotely charging and storing energy to operate a tool in which a latching mechanism selectively locks a piston to the tool body "in a first latched position during movement downhole" as recited in amended, independent claim 1. The reference also fails to disclose or suggest a method for energizing a tool that comprises compressing a spring in a well "to a maximum compressed state" and "holding the spring member in the maximum compressed state" as recited in amended, independent claim 18. The reference further fails to disclose or suggest a method that comprises latching a piston in a tool at "a first latched position for movement downhole", compressing a gas in the tool, subsequently moving the piston an additional distance to further compress the gas, and locking the piston in the tool to prevent the gas from decompressing, as recited in amended, independent claim 23. Again, the reference fails to disclose or suggest a method for actuating a valve that comprises compressing a gas to point beyond equilibrium between the gas and the wellbore pressure combined with holding the gas "in a maximum compressed state to store energy" for actuating the valve, as recited in amended, independent claim 25. Similarly, the reference fails to disclose or suggest a method for actuating a valve that comprises compressing a mechanical spring to point beyond equilibrium between the mechanical spring and the wellbore pressure followed by holding the gas "in a maximum compressed state to store energy" for actuating the valve, as recited in amended, independent claim 28. Accordingly, the rejected independent claims are believed patentable over the Poullard et al. reference.

Claims 2-6, 19-22, 24 and 26-27 ultimately depend from one of the independent claims discussed above and are patentable for the reasons provided above with respect to the independent claims as well as for the unique subject matter found in those dependent claims. Accordingly, claims 1-6 and 18-28 are patentably distinguishable over the cited reference.

Claims 29 and 30 were rejected under 35 USC 103(a) as being unpatentable over the Pringle et al. reference, US Patent No.: 4,771,831, in view of the Poullard et al. reference.

Independent claim 29 has been amended to clarify certain aspects of the claim language and is believed patentable over the cited reference.

The Pringle et al. reference discloses a hydrostatically operated liquid sleeve valve used to control and shut off well production. The valve is actuated between an open position and a closed position by hydrostatic pressure resulting from the liquid level in the well annulus. (See column 1, lines 24-28). For example, a movable sleeve is normally biased to an open valve position by a gas charge acting against the sleeve. However, when the pumping of production fluid ceases, the liquid level in the wellbore rises and creates a hydrostatic head which acts against the sleeve on the side opposite the gas charge to move the sleeve to a closed valve position. (See column 1, lines 39-50). In other words, the sleeve moves back and forth towards a point of equilibrium between the pressure of the well fluid in the annulus and the pressure of the gas charge.

In the specific embodiment described in the Pringle et al. reference, a sleeve valve 10 has a body 12 and a movable sleeve piston 28. A pressurized gas chamber 36 is provided in body 12, and the pressurized gas communicates with one side of sleeve piston 28. The gas acts in a direction to bias and move the sleeve piston to an open position. Well annulus pressure outside of body 12 acts on a second side of sleeve piston 28 to move the sleeve piston to a closed position. (See column 3, lines 26-40). The sleeve piston 28 may include a snap acting opening shoulder 56 and a snap acting closing shoulder 58 to provide a faster snap action on both closing and opening movements. (See column 4, lines 34-51). However, the movement of sleeve piston 28 simply results from movement of the sleeve piston toward a point of equilibrium between the surrounding well fluid and the pressurized gas within gas chamber 36. There is no additional storing of energy for use in actuating a well tool.

As described above, the Poullard et al. reference does not disclose or suggest, for example, a mechanism able to latch/hold a piston "in a plurality of positions" including a position where a compressible gas is compressed by a piston. Therefore, the cited references, taken alone or in combination, do not disclose or suggest elements of amended, independent claim 29. Accordingly, claim 29 is patentable over the cited references.

Claim 30 depends from independent claim 29 and is patentable for the reasons provided above with respect to claim 29 as well as for the unique subject matter found in claim 30. Accordingly, 29 and 30 are both patentably distinguishable over the cited references.

In view of the foregoing remarks, the pending claims are believed patentable over the cited references. However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

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Robert A. Van Someren
Reg. No. 36,038

PO Box 2107
Cypress, TX 77410-2107
Voice: (281) 373-4369